



IEN Technical Advisory Committee

February 3, 2009, Meeting Minutes

(approved by Committee April 7, 2010)

The February 3, 2010 meeting of the IEN Technical Advisory Committee was held in the Barbara Morgan Room, LBJ Building, 650 West State Street, Boise, Idaho.

ATTENDANCE

Members/Alternates Present:

Greg Zickau (Chair), Office of the CIO
Jerry Reininger (Co-Chair), Meridian School District
Randy Gaines, Idaho State University (VTC)

Ann Joslin, Commission for Libraries
Brady Kraft, Idaho Education Network
Jerry Piper, Cambridge Telephone Co. / ITA
Chris Gibson, Jerome School District (VTC)
Ryan Gravette, Idaho Digital Learning Academy

Others Present:

Sally Brevick, Office of the CIO
Bob Collie, ENA
Dan McDaid, One Vision Solutions
Keith Murphy, Qwest

Dave O'Neill, IEN
Lenny Simpson, ENA
Debra Stephenson-Padilla, Office of the CIO
Eldon Wallace, retired

APPROVAL OF PREVIOUS MEETING MINUTES

MOTION: Jerry Reininger moved and Ann Joslin seconded a motion to approve the minutes of the meeting held on December 2, 2009; the motion passed unanimously.

GENERAL UPDATE FROM BRADY KRAFT

Brady Kraft shared a graphic representation of the IEN architecture and advised that the IEN was not technology-specific in the deployment of bandwidth, consideration is being given to the technology used or preferred by the incumbent ILEC. Brady also noted that ENA is making the connection to IRON which, in turn, allows content providers who have a connection to IRON to deliver content to any of the schools on the IEN without having to traverse the public internet. ENA currently provides the connection to the internet (via the Chicago POP) but this will shortly be replaced with a direct connection from Qwest.

PHASES 1 AND 2 UPDATE

Brady reported that there are 12 sites connected now (connectivity and VTC) but another 30 are in the final stages of the build-out, no problems are foreseen in achieving the first year target (80 schools connected and online by June 30th). In the discussion that followed, it was clarified that Qwest will be ultimately be providing the Level 3 POP but ENA will still provide the internet filtering service. ENA will connect internally to the IEN and externally to the IRON (through a private connection) and Qwest.

Ryan Gravette queried where the IDLA should feature on the diagram. Brady advised that the IDLA is considered a content provider, some content providers connect to IRON and travel the VPN (virtual private network) all the way to the schools, others such as CSI have an internet connection to Qwest – the choice lies with IDLA as to which way they want to connect. Currently, the IEN does not have funding to connect directly to the IDLA. It was suggested that the diagram could reflect the current and future connectivity based on changes that IDLA chooses. Regarding the State Department of Education, Brady explained that all state government services are connected through the internet. However, at point in the near future these will connect directly, particularly the

SDE. The example on the diagram showing two ILECs connecting to one another before connecting to Qwest is an example of a different design for the middle mile local loop, as in some locations the ILEC provides a portion of the middle mile as well as the local section.

Responding to a query about how to petition for the IDLA to become part of the IEN in terms of funding, Greg advised that the issue of funding was not the purview of this committee and the question may be more appropriate for the IPRAC.

IEN-DEPLOYED BANDWIDTH RATES AND CONSUMPTION

Lenny Simpson advised that utilization stands at 30-35% of the currently-available bandwidth. There is insufficient data at this time to establish trends but the bandwidth and consumption are both rising. ENA has found in other states that there tends to be a latent demand which is satisfied as bandwidth is provided. Bob Collie explained that ENA uses three metrics regarding inbound and outbound utilization: peak, 95th percentile and average.

BIP/BTOP UPDATE

After being introduced to the committee, Dave O'Neill, who is working with the IEN in preparing the BIP grant application, explained that other programs such as libraries and IRON were being tied into the application to make them complementary and increase the value of the grant for Idaho. Dave explained that there are two opportunities for grants in this second round of stimulus-based funding, one is a BTOP (Broadband Technologies Program) and the other is BIP (Broadband Information Technologies program). These differ in their requirements and the IEN has chosen to pursue the BIP grant which is focused predominantly on network and targeting rural areas with an advantage. 45 sites have been identified at this time that meet a series of parameters and that have great potential for being funded in the grant that the IEN is proposing, and 18 sites are identified as "matching sites". (The list of sites will be made available once it is finalized.) The grant proposal has to be submitted between February 16th and March 15th.

The intent of the grant is to pick up the cost of

- the equipment at the ILEC;
- the fiber between the ILEC and the school facility, including the electronics at the school facility; the few instances where facilities need to be built from the point of presence on the property to where the point of electronics will be housed.

With assistance from the Commission for Libraries, potential libraries sites have been identified for which the grant will pick up the electronics in the CO (central office) and the fiber local loop but the electronics in the library would belong to the Libraries' grant.

Regarding ongoing bandwidth utilization and sustainability, the IEN anticipates being able to pay for the services on the local loop that are potentially built as a part of the BIP grant. The Commission for Libraries will be responsible for the bandwidth in the local loop for libraries, the IEN will help provide the infrastructure but will not take on the cost of doing business. Brady added that the underlying essence of the application is that the state will partner with the incumbent ILECs and the IEN is requesting money to buy the electronics and dark fiber, thereafter the IEN will purchase the bandwidth. The infrastructure purchased will be owned by the local ILEC.

It was clarified that there was no process for selecting an ILEC as there is only one ILEC in any community. It is the hope of the IEN that this will become an economic stimulus and investment opportunity for communities and that the ILECs will use the increased capacity as a business incentive. The IEN does not expect a specific rate to be charged by the ILECs, it is variable by location and it is hoped that favorable pricing will be offered but there are processes in place to deal with offers that are considered exorbitant.

LEVEL 3 POP UPDATE

Keith Murphy confirmed February 15 as the target date for bringing the Level 3 POP online. All the hardware is in place and the work has progressed at a good pace. The transition will take place over scheduled maintenance which should be transparent to the end user.

REVIEW OF VTC COURSES AND IMPACT ON BANDWIDTH CONSUMPTION

Greg stressed that VTC was not the only means of providing content over the IEN but it was prominent because of the cost, the rollout and in many cases it was a new capability. Brady advised the committee that bandwidth consumption is fixed per connection. There have been a number of connections at 384Kbs/second that have been very adequate (this is the standard that is adopted across the country). Brady clarified that bandwidth for originating sites is additive: if connecting to three sites then the bandwidth will be 3 x 768Kbs. One of the factors in selecting schools as originators is whether they will have sufficient bandwidth. All systems are equipped with multi-point capability to eliminate retro-fitting at a future date.

In response to a query, Bob Collie explained that it is possible at an aggregate level for the state to breakout the utilization of bandwidth but at the individual district level this is done for trouble-shooting purposes only and the information is not stored. The aggregate level does not, however, capture point to point video or internal consumption so the information is not especially valuable.

IEN CLEARING HOUSE

As Garry Lough could not attend the meeting, Brady reported on a project being managed in partnership with the State Department of Education (SDE) to create a content clearing house. This may be available online in as little as two week's time. The site will provide an opportunity for all content providers to post their classes and schedules and there will also be a section where receivers can post a "wish list" of requests for classes. The site will be controlled not by the IEN but by the end users, empowering originators and receivers as education consumers. The content will not be VTC-biased but will include anything that can be delivered online whether it is synchronous or asynchronous. It was likely that there will be a restriction on education-only vendors but the question is better suited to the SDE which will be responsible for the content.

ANY OTHER BUSINESS

IETA (Idaho Education Technology Association) conference Jerry Reininger reported that he had heard many positive comments about the IEN at the conference (February 1 – 3). Aside from a few problems during the installation of equipment, the overall flavor was one of excitement and everything was reportedly working very well. Those schools already connected, as well as those "waiting in the wings", were looking for new opportunities within their district to utilize the equipment.

Visits to Local Telephone Companies Greg Reported that he and Brady had started visiting local telephone companies in their own districts in order to dispel rumors that had developed, discuss the successes and challenges to date and answer any questions the companies might have.

High Cost Sites Greg went on to report that there had been a recent change to the process undertaken when a site is identified as being more costly than anticipated. ENA and Qwest were now being asked to provide a proposal based on alternative technologies. It had not been thought necessary to bring these proposals to this committee for review as this was the purview of the IEN Technical Director. Ryan Gravette suggested that this *did* fall under the responsibility of this committee to audit some of these choices. The Technical Committee Co-Chairs will consider this recommendation (to date there have been no such proposals).

Positive feedback Chris Gibson related some feedback he had received from a counselor at a high school in his district who had emailed him saying "I've been worried with budget cuts how we would continue to offer educational opportunities to a broad spectrum of students, including our high achieving learners. Partnership

with the College of Southern Idaho on the Psychology 101 course has been exciting and very viable. The equipment is easy to use, maintain and trouble-shoot, and the students respond very positively to the format of the lesson. The instructor uses a variety of media through the system to keep students engaged and interested. The bandwidth issue and degradation, or should I say lack of degradation, of the signal is absolutely amazing. There were four sites connected with no max headroom effect."

The meeting adjourned at 3:12 pm.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "S. Brevick", with a stylized flourish at the end.

Sally Brevick, Office of the CIO